

### **REMARKS**

The Examiner is thanked for the examination of this application, and for his reconsideration of the amendments by way of the RCE filed on Jan. 22, 2008. In this action, the Office withdraw the Section 102 rejection, and presented a new reference and new grounds of rejection under Section 103. Reconsideration in light of these remarks is respectfully requested.

### **REJECTIONS UNDER 35 USC 103**

Claims 1 and 3-32 were rejected under 35 USC § 103(a) as being unpatentable over Gvili et al. (Depth Keying, SPIE Vol. 5006(2003)), and in view of Parker (US 7,106,366). This rejection is respectfully traversed. Parker is a newly cited reference.

As noted on page 4 of the Office Action, the Office confirmed that Gvili does not specifically teach adjusting of the image capture device parameters independently in the foreground and background. To support this proposition, the Office relies on Parker.

Parker defines a method and system for generating an enhanced compressed digital image. The method captures a digital image and then generates additional information related to the importance of photographed subject and corresponding background regions of the digital image. The image is then compressed to form a compressed digital image. Additional information is associated with the compressed digital image to generate the enhanced compressed digital image. Then, Parker stores the enhanced compressed digital image in a data storage device.

The key aspect and teaching of Parker is the use of its detection unit 208, that enables its "main subject" detection, in order to de-emphasize the background. To compete this, the digital image is segmented into a few regions of homogenous properties. These regions are then examined for the identification of structural features and semantic features by a feature extraction unit 301. See Col. 5, lines 14-67. Skin or faces are semantic features, while human faces are structural features. This information is fed into the belief computation in step 303. Centrality is also taken into consideration in forming the belief computation, which assigns a *probability* indicative of whether the subject was identified. The thrust of Parker, is to provide more analysis regarding the content of a photograph, after the image is captured, by post processing. In contrast, the claims define operations that occur *during the capture process*, instead of post processing of an image as taught by Parker.

Notice that all of the information is gathered, but is not determinative of whether a "subject" or "background" is identified in the image. The belief map is the one that assigns a continuum of belief values to pixels in the image. Col. 5, lines 6-7, and Col. 4, lines 22-24. And, the belief values represent the "relative importance" of pixels, and deductions can be made as to whether background or subjects are indeed identified. This processing, however, is concentrating on the content of the picture itself, due to its examination of *colors* for semantics and *geometry* for structure. If a person is sitting in the background, that person can be included as the subject.

Thus, the definition for what is background is different than the claimed depth mask that identifies objects within a foreground region and a background region of the scene based upon the light captured during the set time. Consequently, neither Park's new teachings, nor the teachings of Gvili et al. teach or suggest the claimed depth mask for identifying objects within the foreground region with a first bit value and identifying objects within the background region with a second bit value.

The added teachings of Parker, although interesting, are different from what is claimed. The applicants claim generating a depth mask that identifies objects within a foreground region and a background region of the scene based upon the light captured *during the set time*, the depth mask identifying objects within the foreground region with a first bit value and identifying objects within the background region with a second bit value. The processing by Parker is "after" the image is captured, by running through a number of post processing operations. The operations, being designed to target the content of the image and then compile probability data in the belief computation.

Still further, it is noted that Parker specifically notes that depth is an option that is not necessary for the main subject detection. Col. 9, lines 29-30. The depth data, if used, is only used to further improve the belief map 209. Col. 9, lines 10. Thus, the depth data, as defined by Parker, is used as an additional "structural feature". Consequently, even if depth data is taken, the data is not used as claimed, it is only used to augment the values of the belief map 209. As a result, the teachings of Parker do not add to what is discussed in Gvili et al.

As noted in the last Office action response, Gvili et al. is concerned with the identification of foreground and background of a scene, in order to isolate the foreground. As noted on page 564, the first line of Section 1, Gvili et al. states: "Throughout this paper we shall refer to the objects of interest as the *foreground*, and to the objects that we want to exclude as the *background*, regardless of their actual position in the scene." (emphasis added).

At the bottom of page 569, Givili et al. defines a process for focusing only on the foreground objects, and states that the recovery of the contour of the foreground objects is done only during the time that a full scan of the frame is done. Further processing then centers on the foreground object. Boundary only processing is further discussed at line 1 of page 570. Finally, Givili et al. discusses on page 571, that "processing is computationally efficient: it is performed on a limited area of the frame, around the object boundaries..."

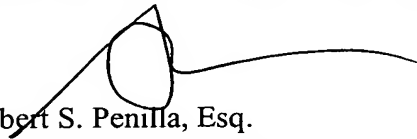
Given these clarifying amendments made in the last response, and the differences pointed between what is claimed and the teachings of Gvili et al. and Parker, the Applicant respectfully request the Office to withdraw the Section 103 rejection. The dependent claims are also submitted to be patentable, for at least the same reasons the independent claims are believed to be patentable.

Application No. 10/758,817  
Office action response dated June 24, 2008  
Responsive to Office Action Dated March 24, 2008

In view of the foregoing, Applicants respectfully submit that all of the pending claims are in condition for allowance. A notice of allowance is respectfully requested.

In the event a telephone conversation would expedite the prosecution of this application, the Examiner may reach the undersigned at **(408) 774-6903**. If any fees are due in connection with the filing of this paper, then the Commissioner is authorized to charge such fees to Deposit Account No. 50-0805 (Order No. SONYYP031). A copy of the transmittal is enclosed for this purpose.

Respectfully submitted,  
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